Abnormal noises when turning

1. Worn or damaged cone spring or shim.
2. Damaged driveshaft splines.
3. Worn or damaged cams or face cams.
4. Worn or damaged ring gear bearing.

Rear Differential
Excessive Noise

1. Low oil level.
2. Excessive ring gear and pinion gear backlash.
3. Worn or damaged drive pinion and splines.
4. Damaged driven flange and wheel hub.
5. Worn or damaged driven flange and ring gear shaft.

HANDLING

Poor handling will reduce overall performance and may cause loss of control and a crash. If the handling is poor, check the following items:

1. If the handlebars are hard to turn, check for the following:
   a. Low tire pressure.
   b. Incorrect throttle cable routing.
   c. Damaged steering shaft bushing and/or bearing.
   d. Bent steering shaft or frame.
   e. Steering shaft nut too tight.
2. If there is excessive handlebar shake or vibration, check for the following:
   a. Loose or damaged handlebar clamps.
   b. Incorrect handlebar clamp installation.
   c. Bent or cracked handlebar.
   d. Worn wheel bearing(s).
   e. Excessively worn or damaged tire(s).
   f. Damaged rim(s).
   g. Loose, missing or broken engine mount bolts and mounts.
   h. Cracked frame, especially at the steering head.
   i. Incorrect tire pressure.
   j. Damaged shock absorber damper rod.
   k. Leaking shock absorber damper housing.
   l. Sagged shock spring(s).
   m. Loose or damaged shock mount bolts.
3. If the rear suspension is too soft, check for the following:
   a. Damaged shock absorber damper rod.
   b. Leaking shock absorber damper housing.
   c. Sagged shock spring.
   d. Loose or damaged shock mount bolts.
4. If the rear suspension is too hard, check for the following:
   a. Rear tire pressure too high.
   b. Incorrect shock absorber adjustment.
   c. Damaged shock absorber damper rod.
   d. Leaking shock absorber damper housing.
   e. Sagged shock spring.
   f. Loose or damaged shock mount bolts.
5. Check the following on the frame:
   a. Damaged frame.
   b. Cracked or broken engine mount brackets.
6. If the wheel is wobbling, check for the following:
   a. Loose wheel nuts.
   b. Loose or incorrectly installed wheel hub.
   c. Excessive wheel bearing play.
   d. Loose wheel bearing.
   e. Bent wheel rim.
   f. Bent frame or other suspension component.
7. If the ATV pulls to one side, check for the following:
   a. Incorrect tire pressure.
   b. Incorrect tie rod adjustment.
   c. Bent or loose tie rod.
   d. Incorrect wheel alignment.
   e. Bent frame or other suspension component.

FRAME NOISE

Noises traced to the frame or suspension are usually caused by loose, worn or damaged parts. Various noises that are related to the frame are listed below.

1. The most common drum brake noise is a screeching sound during braking. Drum brake noises can be caused by:
   a. Glazed brake lining or drum surface.
   b. Excessively worn brake linings drums.
   c. Warped brake drum.
2. Front or rear shock absorber noise can be caused by:
   a. Loose shock absorber mounting bolts.
   b. Cracked or broken shock spring.
   c. Damaged shock absorber.
3. Some other frame associated noises can be caused by:
   a. Cracked or broken frame.
   b. Broken swing arm or shock linkage.

c. Loose engine mounting bolts.
d. Damaged steering shaft bearings.
e. Loose mounting bracket.

BRAKES

The front and rear brakes are critical to riding performance and safety. Inspect the brakes frequently and repair any problem immediately. When replacing or refilling the front brake fluid, use only DOT 3 or DOT 4 brake fluid from a sealed container. See Chapter Thirteen for additional information on brake fluid selection and drum brake service.

Front Drum Brake

If the front drum brakes are not working properly, check for one or more of the following conditions.
1. Incorrect front brake adjustment.
2. Air in brake line.
3. Brake fluid level too low.
4. Loose brake hose banjo bolts. Brake fluid is leaking out.
5. Loose or damaged brake hose or line.
6. Worn or damaged brake drum.
7. Worn or damaged brake linings.
8. Oil on brake drum or brake lining surfaces.
9. Worn or damaged wheel cylinder(s).
10. Weak or damaged brake return springs.

Rear Drum Brake

If the rear drum brake is not working properly, check for one or more of the following conditions.
1. Incorrect rear brake adjustment.
2. Incorrect brake cam lever position.
3. Worn or damaged brake drum.
4. Worn or damaged brake linings.
5. Oil on brake drum or brake lining surfaces.
6. Worn or damaged wheel cylinder(s).
7. Weak or damaged brake return springs.

Water Entering the Front Brake Drum(s)

1. Damaged waterproof seal.
2. Incorrectly installed waterproof seal.
3. Loose or unsealed wheel cylinder assembly.
4. Damaged hub O-ring.
5. Loose front axle nut.
6. Damaged brake panel O-ring.
7. Damaged wheel hub dust seal.
8. Damaged brake drum dust seal.
9. Damaged brake drum.
10. Damaged steering knuckle axle seal.
11. Loose brake panel mounting bolt(s).
12. Incorrect breather tube routing.

Table 1 ELECTRIC SHIFT TROUBLE CODES (2003-ON FE AND TE MODELS)

Number of gear indicator blinks	Faulty system	Probable faulty component
1	ECU (writing and recording circuit)	ECU
2	ES shift switch system (up and down)	Shift switch or related wire harness or ECU
3	Angle sensor system	Angle sensor, related wiring or ECU
4	Gear position switch system	Gear position switch, related wiring or ECU
5	ECU motor driver circuit	ECU
6	ECU fail-safe relay circuit	ECU
7	ECU voltage convert circuit	ECU
8	Angle sensor system	Angle sensor, shift control motor, related wiring or ECU
9	Angle sensor system	Angle sensor, related wiring or ECU
10	Ignition pulse generator system	Ignition pulse generator, related wiring or ECU
11	Vehicle speed sensor system	Vehicle speed sensor, related wiring or ECU
12	Gear position switch system	Gear position switch, related wiring or ECU